

MEDICAL CONTROL GUIDELINE: 12-LEAD ELECTROCARDIOGRAM

PRINCIPLES:

1. The 12-lead electrocardiogram (ECG) in the prehospital care setting plays a key role in determining the most appropriate treatment and destination for patients with suspected cardiac symptoms.
2. Prehospital identification and communication of ST-elevation myocardial infarction (STEMI) can reduce critical “door-to-intervention” times for STEMI patients.
3. When a 12-lead ECG is indicated, it should be obtained early in the assessment so necessary medical treatment is not be delayed in order to obtain an ECG on the unstable patient.

GUIDELINES:

1. Perform a prehospital 12-lead ECG on patients with any of the following:
 - a. Chest pain/discomfort/symptoms of suspected cardiac etiology
 - b. Medical history with high risk of acute cardiac event
 - c. New onset dysrhythmia
 - d. Return of spontaneous circulation (ROSC) after a cardiac arrest, if able
2. Treat symptoms and rhythms identified according to applicable treatment protocols.
3. Maintain the patient’s privacy and dignity while performing the 12-lead ECG.
4. Contact the SRC if the 12-lead ECG tracing has greater than 1mm ST-segment elevation in 2 or more contiguous leads and/or if computer analysis indicates “Acute MI” (or manufacturer’s equivalent). Transmit the ECG tracing to the SRC receiving the patient. Discuss with receiving SRC ED physician.
5. Contact base hospital. Report to the base hospital should include: the computerized ECG reading, quality, time taken, baseline rhythm, presence or absence of all 12-leads on ECG tracing, presence or absence of artifact, presence or absence of a wavy baseline, and, if applicable, repeated attempts to obtain a good quality 12-lead ECG. Base hospitals should obtain this information if not provided by paramedics. Document this information on the appropriate prehospital care record.
6. Provide prehospital 12-lead ECGs that are labeled with the patient’s name, sequence number, date and time to the receiving facility (in either paper or electronic format) as part of the patient's prehospital medical record.